



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,584	10/31/2001	Blaine D. Gaither	100111496-1	1951

7590 02/25/2004

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER
----------

CHACE, CHRISTIAN

ART UNIT	PAPER NUMBER
----------	--------------

2187

DATE MAILED: 02/25/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

2

## Office Action Summary

Application No.

10/001,584

Applicant(s)

GAITHER ET AL.

Examiner

Christian P. Chace

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5 and 6 is/are rejected.
- 7) ☒ Claim(s) 2-4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2187

## **DETAILED ACTION**

### ***Information Disclosure Statement***

IDS submitted 20 February 2002 has been considered by examiner. A signed and initialed copy is attached hereto.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities:

With respect to step (b), "at least one modified entry" is claimed. Then, "the number of modified entries" is further claimed. While examiner understands what applicants intend to claim, making the exact language consistent throughout the claim for the benefit of the general public, should the instant application pass to issue, is required. For example, changing "at least one modified entry" to "a number of modified entries" is suggested. Appropriate correction is required.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the changing of the value of the time period, as in claim 1, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "the time period" in step (d). There is insufficient antecedent basis for this limitation in the claim. Claims 2-6 depend upon claim 1 and are rejected for the same reason discussed supra. This has been interpreted as changing the value of the threshold, for the purposes of examination.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 5-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Talyansky et al (US Patent 6,678,794).

With respect to independent claim 1, a method for improving the performance of a computer system is disclosed in the title, for example, as smoothing in a file system.

Specifying a threshold is disclosed in column 3, lines 39-41, as responsive to a number of dirty buffers in the cache.

Evicting, from a cache memory, at least one modified entry, when the number of the at least one modified entries in the cache exceeds the threshold is disclosed in

column 3, lines 39-41, where the sync process which flushes, or evicts, responsive to the number of dirty entries in the cache. A buffer is an entry. "Modified" is interpreted as "dirty," as disclosed in column 1, lines 36-38, for example. Flushing is defined as writing data back to main memory in column 1, lines 65-67 – in this case, a disk.

Measuring at least one "performance parameter" is disclosed as measuring the age of the dirty buffers in column 3, lines 45-46.

Changing the value of the threshold is disclosed in column 3, lines 63-65 which discloses the threshold being dynamically adapted.

Repeating steps (b) and (c) is inherent in disclosure of the word, "dynamic," which means changing over time. If something changes over time, then it must, inherently, happen more than once, otherwise, there can be no change over time.

Determining whether the "performance parameter" has changed is disclosed as the age being dynamically varied responsive to cache usage, as disclosed in column 3, lines 42-44. Inherently, if the age is dynamically varied, there must be a "determination" as to whether it has changed.

With respect to claim 5, repeating the steps of claim 1 until the performance parameter is "optimized" is disclosed in column 3, lines 42-44, as the age being dynamically varied responsive to "cache usage." "Optimized" means to improve as far as possible. The disclosure in column 3, lines 42-44 is disclosed as being in order to "improve the file management of computer operating systems, and to improve cache response time [as far as possible]," as disclosed in column 3, lines 10-15, for example.

This is inherent in every invention, as well. There must be an "optimization" of "performance parameters," or there would be no motivation for any invention.

With respect to claim 6, repeating the steps of claim 1 until the "performance parameter" changes is disclosed in column 3, lines 10-15 and lines 42-44 as the age being dynamically varied responsive to cache usage in order to improve cache response time. In other words, the steps are repeated until the cache response time is improved by the age changing.

#### ***Allowable Subject Matter***

Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, provided applicants overcome the 35 USC 112, second paragraph rejection of the base claim, as discussed supra, as well.


#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian P. Chace whose telephone number is 703.306.5903. The examiner can normally be reached on 9-4-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on 703.308.1756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2187

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'C.P. Chace', with a stylized flourish at the end.

Christian P. Chace